**Construction sites**

Continuously switching off the mains power supply that is connected to emergency light fittings during the construction phase of an installation will cause these fittings to discharge and charge their batteries many times over a short period; this can shorten life of the battery. ABB does not recommend such practices and may not honour the warranty on batteries when they are subjected to such harsh operating conditions. Emergency light fittings are designed to be discharge tested once every 6 months as per AS/NZS 2293.2, subjecting the product to repeated discharge or charge cycles is regarded as an abuse of the fittings.

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**Troubleshooting guide**

If you have installed and connected the fitting as per the instructions listed earlier and it does not function correctly, use the following table as a guide to fixing the problem. Look up the type of fault in the left column and check the possible causes from the right column.

If the fitting still does not work after checking these possible causes, contact ABB customer service in Australia on 1800 60 20 20.

<table>
<thead>
<tr>
<th>No.</th>
<th>Fault</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LED light source and indicating LED not lit</td>
<td>AC supply not connected; or AC supply turned off; or Test switch damaged</td>
</tr>
<tr>
<td>2</td>
<td>LED light source is lit but indicating LED not lit</td>
<td>Test switch damaged; or Battery not connected or faulty</td>
</tr>
<tr>
<td>3</td>
<td>LED light source does not switch to emergency mode when the test button is pressed</td>
<td>Test switch damaged; or Battery not connected or faulty</td>
</tr>
<tr>
<td>4</td>
<td>LED light source works momentarily on emergency when the test button is pressed</td>
<td>Battery not yet charged (allow up to 24 hours)</td>
</tr>
</tbody>
</table>

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**Safety warning**

In Australia and New Zealand, only licensed electricians are permitted by law to work with 240 volt electrical installations. Do not attempt to install or connect this product unless you are a licensed electrician. Turn off and isolate the electrical supply before connecting the fitting to the building wires. Do not touch the terminals of the terminal block when the light fitting is energised. The only user-serviceable parts are the lamp head assembly and battery pack. LED light source is not user-serviceable. Do not attempt to service other parts of the fitting as this will void the warranty. As the installer, it is your responsibility to ensure compliance with all relevant building and safety codes, (i.e: AS/NZS 3000, AS/NZS 2293). Refer to the applicable standards for data and mains cabling installation procedures and requirements.

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**Nexus LX (data cable system)**

The Nexus range of emergency light fittings are designed to be connected together into a special communication network over a level 4 (or higher) high speed, single twisted pair data cable. The Nexus user and technical guide describes all you need to know to successfully install a Nexus project. Ask for it from your supervisor, from your employer or from your nearest ABB product supplier. The network cabling of the building must be installed as per the procedure detailed in the Nexus user and technical guide. No mains or mains carrying cables are to be connected to the data terminals or cables.

**Nexus RF (wireless system)**

The Nexus RF range of light fittings are designed to communicate via a proprietary RF network, however the electrical installation of the fittings is identical to that of a standard non-monitored fitting.
Installation instructions
Note: The circuit supplying mains power to the fitting must not be energised until installation of the fitting is completed.

1. Mark and cut out a hole in the ceiling to suit either small or large Spitfire head. The cut-out size for the standard lamp head is 50mm. The cut-out size for a small 85mm adaptor plate is 70mm and for the large 141mm adaptor plate is 130mm.

Note: The adaptor plates are mainly used for existing Spitfire replacement or where access is limited.

2. Snap the lamp head to the appropriate adaptor plate (if used).
3. Connect the battery to the control pack, the battery pack can be attached to the control pack using cable tie supplied.
4. Connect data cable to the control pack.

5. Feed the battery and control pack assembly through the ceiling cut-out and secure them to a suitable location within the ceiling space. If access to the ceiling cavity is not available, connect the mains power cord before recessing the battery and control pack in the ceiling cut-out. Secure the battery and control pack to a suitable location within the ceiling space.

6. For Nexus LX or Nexus RF product; refer to data connections section.
7. Connect flex and plug to the supply socket.
8. Check operation of the fitting to ensure that the installation was successful. Once powered up, as a non-maintained fitting the present lamp stays off. Allow a few minutes to give the battery a small charge, then press the test button located at the Spitfire lamp head. Hold the test button in for a few seconds and observe the operation of the lamp switching from mains to the emergency mode. If the lamp on emergency mode works momentarily, that’s okay. Try again in a few minutes in case battery is completely discharged, it may take a little time to charge up enough to operate even momentarily. After this time, press the test button again and if the lamp does not work at all, check the supply, the connections and follow the instruction given in the troubleshooting guide at the end of this document. Operation modes of the LED status should be as follows.

<table>
<thead>
<tr>
<th>Fitting type</th>
<th>Indicator LED state - on initial powering - no fitting faults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-monitored</td>
<td>Solid red</td>
</tr>
<tr>
<td>Nexus LX</td>
<td>Flashing green</td>
</tr>
<tr>
<td>Nexus RF</td>
<td>Green flash with 2 red blinks, green flash with 3 red blinks</td>
</tr>
</tbody>
</table>

9. This step is for Nexus LX or Nexus RF fitting only. Once manually checked, it is ready for the commissioning into the Nexus network. Keep the information details of this fitting including exact location description, DB (distribution board) and CB (circuit breaker) numbering, channel and router numbering, plan number and cross referencing information as all of this will be required for entry into the database during commissioning. Refer to the Nexus user and technical guide for full details. As the installer, it is your responsibility to conduct the initial discharge testing of the installed fitting. Refer to AS/NZS 2293.

Data connections

Nexus LX fitting
• Connect the data cable as shown in figure 2 using a suitably sized screwdriver.
• Ensure that the data cable/s are completely inserted into the connector and properly secure with the cable tie.
• When correctly installed no fitting should have more than 2 data cables connected to it.
• If you have more than 2 data cables at any 1 fitting, the installation is incorrect.
• If this fitting is at the end of a data cable run, a terminator needs to be wired parallel across the 2 data lines.
• If there is an in and out data cable, then the shields should be wound together, folded back and taped up.
• Consult the Nexus user and technical guide for further detail, including product commissioning.

Nexus RF fitting
• Connect the antenna to the control pack.
• Collect the MAC address, by removing the peel off sticker section and locating it on your floor plan or spreadsheet.
• Consult the Nexus user and technical guide for further detail, including product commissioning.

Important: 24 hours is required to allow the fitting battery to reach full capacity, ie: prior to a discharge test. As the installer, it is your responsibility to conduct the initial discharge testing of the installed fitting. Refer to AS/NZS 2293.

Removal instructions
1. Before removing the installed fitting, de-energise and lock off the supply circuit.
2. Unplug the power cord from the mains socket.
3. Disconnect the battery and lamp head plug.
4. For Nexus LX product; unplug the data cable connector from the control pack.

Testing precautions
Once the fitting is permanently connected to the mains supply, a commissioning discharge test as required in AS/NZS 2293.2 must be carried out. You will need to allow 24 hours for the battery to fully charge prior to conducting this test, presently (at the time of writing), the standard requires that fittings operate in emergency mode for a period not less than 2 hours for their commissioning test and for not less than 90 minutes thereafter (It is required that 6 monthly discharge tests be carried out). You will need to keep the records for the commissioning test and enter them into the building emergency services logbook or via other recording methods as allowed by AS/NZS 2293.2.